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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,840	06/23/2003	Andrew D. Roberts	032026-0732	9556

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EXAMINER	
PERREIRA, MELISSA JEAN	

ART UNIT	PAPER NUMBER
1618	

MAIL DATE	DELIVERY MODE
05/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/601,840	ROBERTS ET AL.	
	Examiner	Art Unit	
	Melissa Perreira	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-4 are pending in the application. Any objections and/or rejections from previous office actions that have not been reiterated in this office action are obviated.

1. The terminal disclaimer filed on 1/30/07 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Arguments

1. Applicant's arguments filed 4/26/07 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulholland et al. (*J. Nuc. Med.* **1987**, *8*,1082, posterboard 899) in view of Decrock et al. (Rev. Sci. Instrum **1998**, *69*, 323-324) as stated in the office action mailed 10/30/06.

4. Applicant concedes that Mulholland et al. does disclose the methods for the production of ^{17}F-labeled CH_3.

5. Applicant asserts that Decrock et al. does not disclose the methods for the production of ^{17}F-labeled CH_3 but the production of ^{17}F-labeled CF_4.

6. Decrock et al. teaches that the CF_4 produced via F_2/Ne preparation [$^{17}F(\rho,\gamma)^{18}Ne$ or $^{18}F(\rho,\gamma)^{19}Ne$] of radioactive fluorine, such as ^{18}F enables the in situ formation of $CF_3{}^{18}F$ resulting from a substitution reaction. Since Decrock et al. teaches of the preparation of both ^{17}F and ^{18}F via F_2/Ne preparation of radioactive fluorine it would have been obvious at the time of the instant invention to use the method of Decrock et al. for the preparation of radioactive fluorine via F_2/Ne [$^{17}F(\rho,\gamma)^{18}Ne$] to generate the ^{17}F-labeled CF_4 which in turn enables the in situ formation of $CF_3{}^{17}F$ resulting from a substitution reaction. The combination of the disclosure provides for ^{17}F-labeled CH_3 of Mulholland et al. produced with neon gas.

7. Applicant asserts that in order to rely upon inherency fact and/or technical reasoning to support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the prior art.

8. The definition of Ci (Curie) is roughly the activity (disintegrations per second) of 1 gram of the radium isotope and therefore is relative to the mass of the radioisotope. It would be obvious to one ordinarily skilled in the art to produce/utilize more of the desired radioactive compound to increase the amount of the equilibrium activity.

New Grounds of Rejection

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Roberts et al. (*Application of Accelerators in Research and Industry* **1999**, 1006-1009; July 21, 1999).

10. Roberts et al. teaches of the short lived tracer $[^{17}F]CH_3F$ which is an ideal candidate for steady state method of flow imaging (p1006, paragraph 3). The generation of the important radioisotopes for PET, such as ^{17}F is also disclosed using the 9SDH-2 Pelletron (p1006, paragraphs 4 and 5). The production of $[^{17}F]F_2$ is accomplished in natural oxygen/helium gas mixture to yield 21 mCi/μA (p1008, paragraph 6). The prior art teaches the composition of the instant claim, thus the properties are also taught by the prior art. In re Spada, 911 F.2d 705, 709, 15 USPQ 1655, 1658 (Fed. Cir. 1990.) See MPEP 2112.01. The burden is shifted to Applicant to show that the prior art product does not possess or render obvious the same properties as the instantly claimed product.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts et al. (*Application of Accelerators in Research and Industry* **1999**, 1006-1009; July 21, 1999) in view of Decrock et al. (Rev. Sci. Instrum **1998**, *69*, 323-324).

13. Roberts et al. teaches of the short lived tracer [^{17}F]CH_3F which is an ideal candidate for steady state method of flow imaging (p1006, paragraph 3). The generation of the important radioisotopes for PET, such as ^{17}F is also disclosed using the 9SDH-2 Pelletron as well as that stated above. Roberts et al. does not teach of the gaseous composition of ^{17}F labeled fluoromethane comprising neon.

14. Decrock et al. (Rev. Sci. Instrum **1998**, *69*, 323-324) discloses the production of CF_4 via F_2/Ne preparation [$^{17}F(\rho,\gamma)^{18}Ne$ or $^{18}F(\rho,\gamma)^{19}Ne$] of radioactive fluorine, such as ^{18}F. The production of the radioactive CF_4 is done using neon gas target (F_2/Ne) (p323, paragraph3). The production of [^{18}F]CF_4 enables the in situ formation of $CF_3{}^{18}F$ resulting from a substitution reaction. Copious amounts of ^{17}F are produced by using the $^{20}Ne(\rho,\alpha)^{17}F$ reaction (p324, paragraph 2).

15. Since Decrock et al. describes the preparation of both ^{17}F and ^{18}F via F_2/Ne preparation of radioactive fluorine, it would have been obvious at the time of the instant invention to use the method of Decrock et al. for the preparation of radioactive fluorine via F_2/Ne [$^{17}F(\rho,\gamma)^{18}Ne$] to generate the ^{17}F-labeled CF_4 which in turn enables the in situ formation of $CF_3{}^{17}F$ resulting from a substitution reaction. The combination of the disclosure provides for ^{17}F-labeled CH_3 of Roberts et al produced with neon gas and is advantageous as copious amounts of ^{17}F can be produced by using the $^{20}Ne(\rho,\alpha)^{17}F$ reaction of Decrock et al.

Conclusion

No claims are allowed at this time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Perreira whose telephone number is 571-272-1354. The examiner can normally be reached on 9am-5pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MP
May 11, 2007

MICHAEL G. HARTLEY
SUPERVISORY PATENT EXAMINER